IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An overlay image processing device for generating an overlay image signal composed of an n number of selected image signals, n being an integer greater than 2, the overlay image processing device comprising:

a plurality of digital decoders configured to digitally decode a plurality of image signals;

an image selector configured to directly receive outputs from each of the plurality of digital decoders and configured to select from among the plurality of digitally decoded image signals one (1) reference image signal and (n-1) number of superimposing image signals;

a plurality of resolution converters configured to directly receive the selected image signals output from the image selector, such that each resolution converter can input any of the respective outputs, to convert resolutions of the n number of selected image signals into respective desired resolutions, and to output the converted image signals to an image synthesizer,

wherein the image synthesizer is configured to superimpose the (n-1) number of converted superimposing image signals on the converted one (1) reference signal, and

the image selector is configured to connect each of the digital decoders to any of the resolution converters.

Claim 2 (Previously Presented): An overlay image processing device according to claim 1 wherein at least one of the plurality of image signals is a display signal output from a personal computer.

Claim 3 (Original): An overlay image processing device according to claim 1 wherein the image selector selects the reference image signal and the (n-1) number of superimposing image signals according to an arbitrary predetermined order of superposition for the n number of image signals; and

the image synthesizer superimposes the (n-1) number of converted superimposing image signals on the converted reference image signal according to the order of superposition.

Claim 4 (Previously Presented): An overlay image processing device according to claim 1 further comprising a scan converter configured to convert at least one of the interlaced image signals selected by the image selector into a non-interlaced image signal when the at least one of the image signals selected by the image selector is an interlaced image signal.

Claim 5 (Previously Presented): An overlay image processing device according to claim 1 wherein the image synthesizer has the n number of 2-input image synthesizers, each 2-input image synthesizer being configured to receive upper-side and lower-side image signals and superimpose the upper-side image signal on the lower-side image signal;

the n number of 2-input image synthesizers being connected in series in multistage fashion such that the 2-input image synthesizer of a first stage uses the reference image signal as the lower-side image signal and a first superimposing image signal as the upper-side image signal, while the 2-input image synthesizer of an ith stage, where i is between 2 and n, inclusive, uses an output of the 2-input image synthesizer of an $(i-1)^{th}$ stage as the lower-side image signal and an ith superimposing image signal as the upper-side image signal.

Claim 6 (Currently Amended): An overlay image display device for displaying an overlay image composed of an n number of selected images, n being an integer greater than 2, the overlay image display device comprising:

an overlay image processing device for generating an overlay image signal composed of the n number of superimposed image signals; and

an image display device for displaying an image represented by the overlay image signal;

wherein the overlay image processing device includes:

a plurality of digital decoders configured to digitally decode a plurality of image signals;

an image selector configured to directly receive outputs from each of the plurality of digital decoders and configured to select from among the plurality of digitally decoded image signals one (1) reference image signal and (n-1) number of superimposing image signals;

a plurality of resolution converters configured to directly receive the selected image signals output from the image selector, such that each resolution converter can input any of the respective outputs, to convert resolutions of the n number of selected image signals into respective desired resolutions, and to output the converted signals to an image synthesizer,

wherein the image synthesizer is configured to superimpose the (n-1) number of converted superimposing image signals on the converted one (1) reference signal, and

the image selector is configured to connect each of the digital decoders to any of the resolution converters.

Claim 7 (Original): An overlay image display device according to claim 6 wherein at least one of the m number of image signals is a display signal output from a personal computer.

Claim 8 (Original): An overlay image display device according to claim 6 wherein the image selector selects the reference image signal and the (n-1) number of superimposing image signals according to an arbitrary predetermined order of superposition for the n number of image signals; and

the image synthesizer superimposes the (n-1) number of converted superimposing image signals on the converted reference image signal according to the order of superposition.

Claim 9 (Previously Presented): An overlay image display device according to claim 6 further comprising a scan converter configured to convert at least one of the image signals selected by the image selector into a non-interlaced image signal when the at least one of the image signals selected by the image selector is an interlaced image signal.

Claim 10 (Previously Presented): An overlay image display device according to claim 6 wherein the image synthesizer has the n number of 2-input image synthesizers, each 2-input image synthesizer being configured to receive upper-side and lower-side image signals and superimpose the upper-side image signal on the lower-side image signal;

the n number of 2-input image synthesizers being connected in series in multistage fashion such that the 2-input image synthesizer of a first stage uses the reference image signal as the lower-side image signal and a first superimposing image signal as the upper-side image signal, while the 2-input image synthesizer of an ith stage, where i is between 2 and n,

inclusive, uses an output of the 2-input image synthesizer of an $(i-1)^{th}$ stage as the lower-side

image signal and an ith superimposing image signal as the upper-side image signal.

Claim 11 (Currently Amended): A method of generating an overlay image signal

composed of an n number of superimposed image signals, n being an integer greater than 2,

the method comprising the steps of:

(a) digitally decoding a plurality of image signals by use of a plurality of respective

digital decoders;

(b) directly receiving outputs from each of the plurality of digital decoders;

(c) selecting from among the plurality of digitally decoded image signals one (1)

reference image signal and (n-1) number of superimposing image signals;

(d) converting resolutions of the n number of selected image signals received directly

from step (c), including the reference image signal and the (n-1) number of superimposing

image signals, into respective desired resolutions by <u>use of a plurality of resolution converters</u>

<u>directly</u> receiving respective outputs of the step (c) such that any resolution <u>converter</u>

~~conversion~~ can receive any output of the step (c); and

(e) superimposing the (n-1) number of converted superimposing image signals on the

converted reference signal,

wherein an output of step (d) is output to step (e)<u>, and</u>

<u>each of the digital decoders can be connected to any of the resolution converters via</u>

<u>step (c)</u>.

Claim 12 (Previously Presented): A method according to claim 11 wherein at least

one of the plurality of image signals is a display signal output from a personal computer.

Claim 13 (Previously Presented): A method according to claim 11 wherein the step (c) includes selecting the reference image signal and the (n-1) number of superimposing image signals according to an arbitrary predetermined order of superposition for the n number of image signals; and

the step (e) includes superimposing the (n-1) number of converted superimposing image signals on the converted reference image signal according to the order of superposition.

Claim 14 (Previously Presented): A method according to claim 11 further comprising converting at least one of the image signals selected by the image selector into a non-interlaced image signal when the at least one of the image signals selected by the image selector is an interlaced image signal.

Claim 15 (Previously Presented): A method according to claim 11 wherein the step (e) includes the n number of 2-input image synthesizing steps, each 2-input image synthesizing step including receiving upper-side and lower-side image signals and superimposing an upper-side image signal on a lower-side image signal;

the n number of 2-input image synthesizing steps being performed in series in multistage fashion such that the 2-input image synthesizing step of a first stage uses the reference image signal as the lower-side image signal and a first superimposing image signal as the upper-side image signal, while the 2-input image synthesizing step of an ith stage, where i is between 2 and n, inclusive, uses an output of the 2-input image synthesizing step of an $(i-1)^{th}$ stage as the lower-side image signal and an ith superimposing image signal as the upper-side image signal.

Claim 16 (Currently Amended): An overlay image processing device for generating an overlay image signal composed of an n number of selected image signals, n being an integer greater than 2, the overlay image processing device comprising:

an image selector configured to select, from among a plurality of ~~directly received~~ image signals received directly from a plurality of respective digital decoders, one (1) reference image signal and (n-1) number of superimposing image signals;

a plurality of resolution converters configured to directly receive the selected image signals output from the image selector, such that each resolution converter can input any of the respective outputs, to convert resolutions of the n number of selected image signals into respective desired resolutions, and to output the converted image signals to an image synthesizer,

wherein the image synthesizer is configured to superimpose the (n-1) number of converted superimposing image signals on the converted one (1) reference signal, the image synthesizer includes first and second overlay processors connected in series, the first overlay processor is configured to receive an output from a subset of the plurality of resolution converters, and the second overlay processor is configured to directly receive an output from the first overlay processor and another of the plurality of resolution converters, and

the image selector is configured to connect each of the digital decoders to any of the resolution converters.

Claim 17 (Previously Presented): An overlay image processing device according to claim 16 wherein at least one of the plurality of image signals is a display signal output from a personal computer.

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Claim 18 (Previously Presented): An overlay image processing device according to claim 16 wherein the image selector selects the reference image signal and the (n-1) number of superimposing image signals according to an arbitrary predetermined order of superposition for the n number of image signals; and

the image synthesizer superimposes the (n-1) number of converted superimposing image signals on the converted reference image signal according to the order of superposition.

Claim 19 (Previously Presented): An overlay image processing device according to claim 16 further comprising a scan converter configured to convert at least one of the interlaced image signals selected by the image selector into a non-interlaced image signal when the at least one of the image signals selected by the image selector is an interlaced image signal.

Claim 20 (Currently Amended): A method of generating an overlay image signal composed of an n number of selected image signals, n being an integer greater than 2, the method comprising the steps of:

(a) selecting, from among a plurality of ~~directly received~~ image signals received directly from a plurality of respective digital decoders, one (1) reference image signal and (n-1) number of superimposing image signals;

(b) converting resolutions of the n number of selected image signals, including the reference image signal and the (n-1) number of superimposing image signals, into respective desired resolutions by use of a plurality of resolution converters directly inputting respective outputs of the step (a) ~~directly from step (a)~~ such that any resolution converter ~~conversion~~ can receive any output of the step (a); and

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(c) first superimposing the (n-1) number of converted superimposing image signals on

the converted reference signal, the first superimposing receiving an output from a subset of a

plurality of steps (b); and

(d) second superimposing a directly received output from the first overlay processor

and another output of the plurality of steps (b),

wherein an output of step (b) is output to step (e), and

each of the digital decoders can be connected to any of the resolution converters via

step (a).

Claim 21 (Previously Presented): A method according to claim 20 wherein at least

one of the plurality of image signals is a display signal output from a personal computer.

Claim 22 (Previously Presented): A method according to claim 20 wherein the step

(a) includes selecting the reference image signal and the (n-1) number of superimposing

image signals according to an arbitrary predetermined order of superposition for the n

number of image signals; and

the steps (c) and (d) include superimposing the (n-1) number of converted

superimposing image signals on the converted reference image signal according to the order

of superposition.

Claim 23 (Previously Presented): A method according to claim 20 further comprising

converting at least one of the image signals selected by step (a) into a non-interlaced image

signal when the at least one of the image signals selected by step (a) is an interlaced image

signal.

Claim 24 (Previously Presented): An overlay image processing device according to claim 6,

wherein the respective outputs of the image selector include an analog RGB signal and a horizontal sync signal,

wherein each of the resolution converters generates a clock signal synchronized with the horizontal sync signal and corresponding to a pixel clock for the analog RGB signal, and quantizes the RGB signal in synchronism with the clock signal to convert the analog RGB signal to a digital RGB signal, and

wherein a single image signal element quantized by each of the resolution converters corresponds to one pixel of the image represented by the RGB signal.

Claim 25 (Previously Presented): A method of generating an overly image signal according to Claim 11, wherein the step (d) of converting resolutions further includes the steps of:

(i) inputting an analog RGB signal and a horizontal sync signal;

(ii) outputting a clock signal that is synchronized with the horizontal sync signal and corresponds to a pixel clock for the analog RGB signal;

(iii) converting the analog RGB signal to a digital RGB signal by quantizing the analog RGB signal in synchronism with the clock signal; and

(iv) changing the resolution of the image represented by the quantized RGB signal by changing the frequency of the clock signal.

Claim 26 (Previously Presented): An overlay image processing device according to claim 16,

wherein the respective outputs of the image selector include an analog RGB signal and a horizontal sync signal,

wherein each of the resolution converters generates a clock signal synchronized with the horizontal sync signal and corresponding to a pixel clock for the analog RGB signal and quantizes the RGB signal in synchronism with the clock signal to convert the analog RGB signal to a digital RGB signal, and

wherein a single image signal element quantized by each of the resolution converters corresponds to one pixel of the image represented by the RGB signal.

Claim 27 (Previously Presented): A method of generating an overly image signal according to Claim 20, wherein the step (b) of converting resolutions further includes the steps of:

(i) inputting an analog RGB signal and a horizontal sync signal;

(ii) outputting a clock signal that is synchronized with the horizontal sync signal and corresponds to a pixel clock for the analog RGB signal;

(iii) converting the analog RGB signal to a digital RGB signal by quantizing the analog RGB signal in synchronism with the clock signal; and

(iv) changing the resolution of the image represented by the quantized RGB signal by changing the frequency of the clock signal.